Work Order ID 61929 - PRELIMINARY ISSUE Thursday, September 09, 2010 12:55:29 PM

Page 1

Item Name: G	PRELIM Gusset	COLUN						, iiiiii s	etup Star Stop		
Start Date: 9 Required Date: 9 Reference:	0/9/2010 0/16/2010	Start Qty: 2.00 Req'd Qty: 2.00			Cust Item I Customer:	D:					
10.00	Process Plan	n: H	Date: 10-9-	Tooling: SPC (Y/N):		ite:		R	tun Star Stop		
Sequence ID/ Work Center ID		Operation Description		Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revi	sion Nbr									
D4180	PA1										
Waterjet FLOW CNC Waterjet		Memo 1-Cut as per Dwg Rev: Prog Rev: 2-Deburr if	PAI	0.00				R (C	2413	4	
QC Quality Control		QC2- Inspect parts off m	nachine FAI/FAIB	0.00				IB	0-4-13		

Dart	Aerospace Ltd	
W/O:		

V/O:		WORK ORDER	CHANGES				,
DATE STEP		PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Doub No.	200						
Part No:	PAR #:	Fault Category:	NCR: Ye	s No DQ	A:	_ Date: _	
F	esolution:	Disposition:	QA: N/C	Closed:		Date: _	

NCR:			WORK ORDE	ER NON-CONFORMAN	CE (NCR)			
	Tarantara (Description of NC		Corrective Action Section B		Verification	Anneoval	Annvoval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspector

Work Order ID 61929

Thursday, September 09, 2010 12:55:29 PM



Page 2

Item ID:

D4180-6

PRELIM

Revision ID: Item Name:

Gusset

Start Date:

9/9/2010

Start Qty: 2.00 Reg'd Oty: 2.00



Accept



Setup Start





Required Date: 9/16/2010

Reference:

Process Plan: Approvals:

OC:

Date: Date: Tooling:

SPC (Y/N):

Date:

Cust Item ID:

Customer:

Date:

Start Run

Stop



Sequence ID/ Work Center ID

120

Quality Control

Operation Description

QC8- Inspect parts - second check

Memo

Set Up/ **Run Hours**

0.00 - inspected topal

Tool ID

Tool # Plan Accept Code

Qty

Reject Qty

Reject Insp. Number Stamp

Day only

130

Brake NC

Brake NC

Bend as per dwg

Memo

0.00

0.00

140

Quality Control

QC5- Inspect part completeness to step on W/O

Memo

0.00 - inspected to PAI 0.00 Sideslix (xy

80 (209/14

Dart Ae	rospace l	Ltd							
W/O:			WO	RK ORDER CHANGES					
DATE	STEP	PRO	PROCEDURE CHANGE			Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No		PAR #:							
NCR:			WORK ORDE	ER NON-CONFORMAN	CE (NCR)			
		Description of NC		Corrective Action Section I	3	Verific	ration	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Secti		Chief Eng	QC Inspector
									*

Work Order ID 61929

Thursday, September 09, 2010 12:55:29 PM



Page 3

Item ID:

D4180-6

PRELIM

Revision ID: Item Name: Start Date:

Gusset

QC:

9/9/2010

Start Qty: 2.00



Accept

Setup Start

Stop

Required Date: 9/16/2010

Req'd Qty: 2.00

Cust Item ID: Customer:

Reference:

Approvals:

Process Plan:

Date: Date: Tooling:

SPC (Y/N):

0.00

Date:

Tool ID

Date:

Tool # Plan

Code

Run

Start Stop



Insp.

Stamp

Sequence ID/ Work Center ID

150

HandFinish

Hand Finishing

Operation Description

Chemical Conversion Coat per QSI005 4.1

Memo

Set Up/ Run Hours

0.00

10/09/16

Accept

Qty

Qty

Reject

Reject

Number

160

QC

Quality Control

QC3- Inspect Part Finish

Memo

0.00 BR 10-9-16

0.00

170

Packaging Packaging

Identify as per dwg & Stock Location:

Memo

0.00

Z (0-69-23 W)

Dart Ae	rospace L	_td								13
W/O:			٧	ORK ORDER CHANG	GES					
DATE	STEP	PRO	PROCEDURE CHANGE				Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No	:	PAR #:	Fault Ca	tegory:	NCR: Ye	es No	o DQ	A:	Date:	
		solution:								
NCR:				DER NON-CONFORM						
DATE	OTED	Description of NC			tion B		Verific	ation	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sig Da		Secti		Chief Eng	QC Inspector

Work Order ID 61929

Page 4

Thursday, September 09, 2010 12:55:29 PM

Item ID:

D4180-6

PRELIM

Revision ID: Item Name: Start Date:

Gusset

QC:

Required Date: 9/16/2010

9/9/2010

Start Qty: 2.00

Req'd Qty: 2.00

Accept

Setup

Run

Start



Stop

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date: Date:

Tooling: SPC (Y/N): Date:

Date:

Start



Stop

Sequence ID/

Work Center ID

180

Operation Description

QC21- Final Inspection - Work Order Release

Set Up/ Run Hours 0.00

Tool ID

Tool# Plan Code

Accept Qty

Reject Qty

Reject Insp. Number

Stamp

Quality Control

Memo

0.00

U1009-23

POSITIVE RECALL

EFFECTIVE D'99 09

DATE 10 04.21

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		WO	RK ORDER CHANGE	S				
STEP	PRO	OCEDURE CHAP	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
:	PAR #:	Fault Categ	Jory:	NCR: Yes	No DQ	A:	Date: _	
Res	olution:	Disposition	:	QA: N/C C	losed:		Date: _	
		WORK ORDE	R NON-CONFORMAL	NCE (NCI	٦)			
	Description of NC		Corrective Action Section	пВ	Verifi	cation	Approval	Approval
STEP	Section A	Initial Chief Eng	Action Description Chief Eng				Chief Eng	QC Inspector
	STEP	PAR #: Resolution: Description of NC	STEP PROCEDURE CHAN PAR #: Fault Category Resolution: Disposition WORK ORDE STEP Description of NC Section A Initial	STEP PROCEDURE CHANGE PAR #: Fault Category: Resolution: Disposition: WORK ORDER NON-CONFORMAL STEP Description of NC Section A Section A STEP Description of NC Section Section Initial Action Description	STEP PROCEDURE CHANGE By PAR #: Fault Category: NCR: Yes Resolution: Disposition: QA: N/C C WORK ORDER NON-CONFORMANCE (NCF STEP Description of NC Section A Section B Sign of Section B Sign of Section A Section B Sign of Section B Section B Sign of Section B Sign of Section B Section B Sign of Section B Sign of Section B Section B Sign of Section B Sec	STEP PROCEDURE CHANGE By Date PAR #: Fault Category: NCR: Yes No DQ Resolution: Disposition: QA: N/C Closed: WORK ORDER NON-CONFORMANCE (NCR) STEP Description of NC	STEP PROCEDURE CHANGE By Date Qty PAR #: Fault Category: NCR: Yes No DQA: Resolution: Disposition: QA: N/C Closed: WORK ORDER NON-CONFORMANCE (NCR) STEP Description of NC	STEP PROCEDURE CHANGE By Date Qty Chief Eng / Prod Mgr DESCRIPTION OF NO Section A Section B Section C Section C Section C Section A Approval Chief Eng / Prod Mgr NCR: Yes No DQA: Date: Date

Picklist Print

Thursday, September 09, 2010 12:55:33 PM

Work Order ID: 61929

Parent Item: D4180-6

Parent Item Name: Gusset



Start Date: 9/9/2010

Required Date: 9/16/2010

Page 1

Start Qty: 2.00

Required Qty: 2.00

Comments:

IPP Rev:A 10.09.09 new issue DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6S.125		Purchased	No			100	sf	125.2600	0.0989	0.208211			
6061-T6 125 Sheet											BIO	9-03	

6061-T6 .125 Sheet

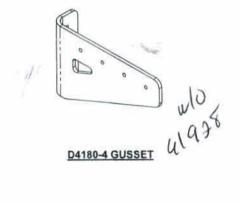
Location	Loc Oty	Loc Code		
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113608	96			U
114352	29.26		114352	

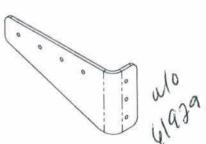
Dart Aerospace Ltd

W/O:			WORK ORDER (CHANGES				•
DATE	STEP	PI	ROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No):	PAR #:	Fault Category:	NCR: Y	es No DQ	A:	Date: _	
	F	Resolution:	Disposition:	QA: N/0	Closed:		Date: _	

		WORK ORDE	R NON-CONFORMAN	CE (NCR)			
	Description of NC		Corrective Action Section E	3	Varification	Approval	Approval
STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	Approval QC Inspecto
	STEP	STEP Description of NC	STEP Description of NC Section A Initial	STEP Description of NC Corrective Action Section B	STEP Description of NC Corrective Action Section B Initial Action Description Sign &	STEP Description of NC Section A Initial Action Description Sign & Verification Section C	STEP Description of NC Corrective Action Section B Verification Approval Section A Chief Eng

x 2 erdi. wo waze **D4180-3 GUSSET D4180-5 GUSSET** D4180-1 GUSSET





D4180-6 GUSSET

STRONG OFY. RETURN TO PRICHNEERING

PRELIMINARY ISSUE

PA1	NEW ISS	UE		MB	10.09.03		
REV.			DESCRIPTION	BY	DATE		
DESIG	N	-	DART AER	ROSPACE	LTD		
DRAW	N	10	HAWKESBURY	ONTARIO, CAN	ADA		
CHECK	KED		DRAWING NO.		REV. PA1		
MFG. A	PPR.		D4180		SHEET 1 OF 4		
APPRO	OVED		TITLE		SCALE		
DEAP	PR.		POD FRAME G	USSETS	NTS		
DATE	10.0	9.03	COPYRIGHT C 2916 BY BART AEROSPACE LTD THIS DOCUMENT IS PRINTED ON COMPRISHED AND IS SUPPLIED ON THE OPTION OF THE PRINTED ON COMPANIANT FOR TO MAKE THE PRINTED ON COMPANIANT FOR TO MAKE THE PRINTED ON THE BEST TH				

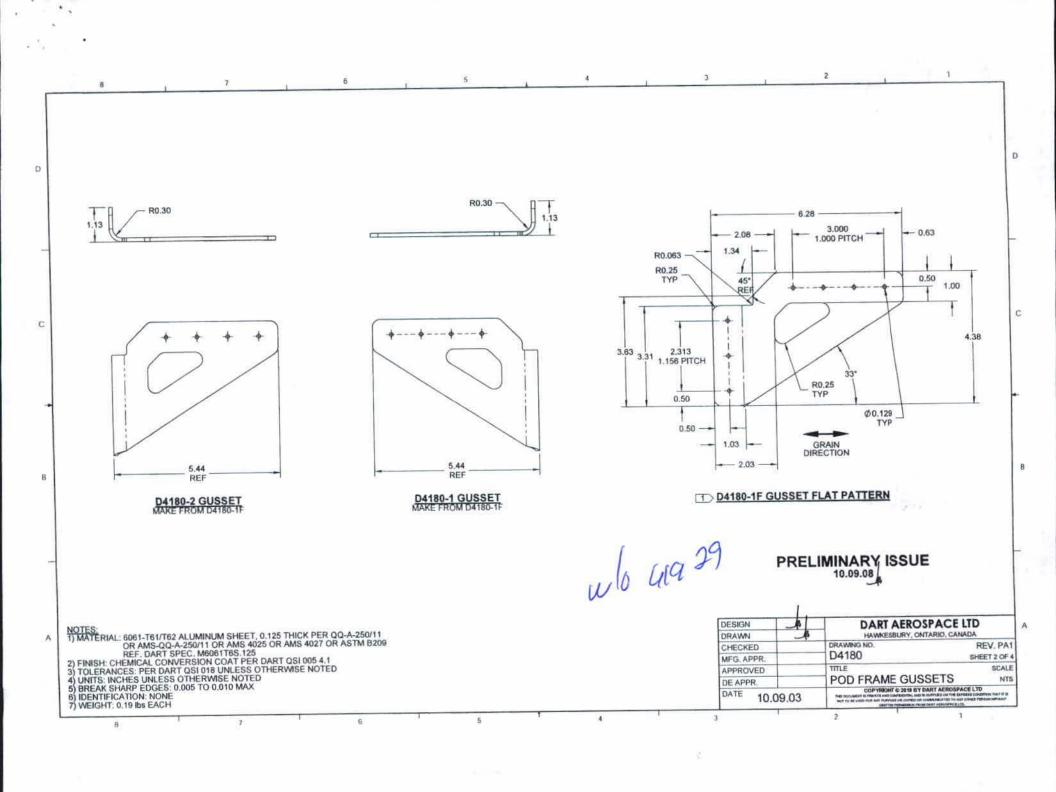
D4180-2 GUSSET

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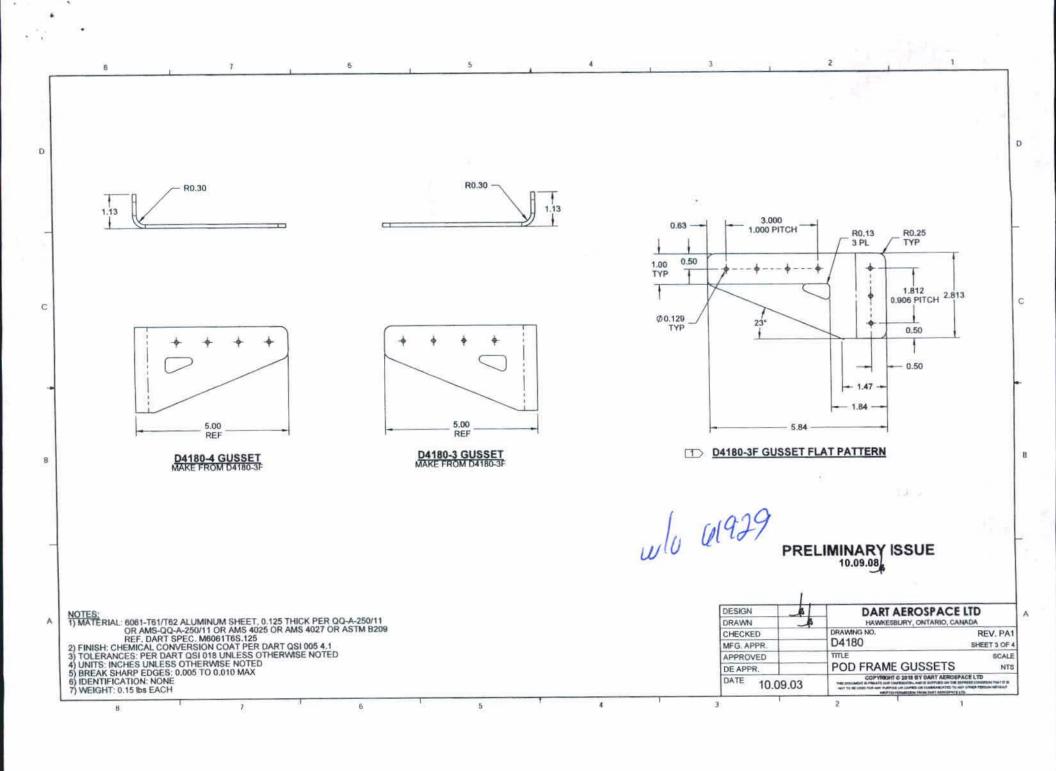
Dart Ae	rospace Ltd							
W/O:			WORK ORDER	CHANGES				
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)									
		Description of NC Corrective Action Section		Corrective Action Section 6	3	Verification	Approval	Annrous			
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	Approval QC Inspector			
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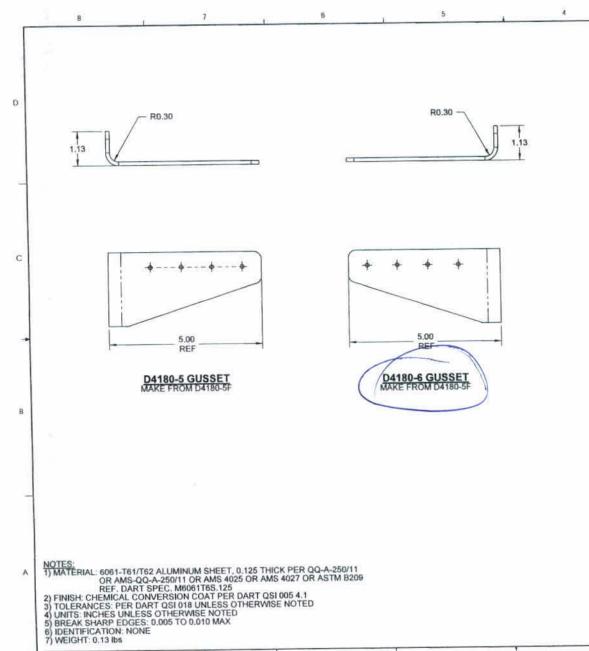
Dart A	erospace	Ltd
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W/O:			V	ORK ORDER CHANG	iES					
DATE	STEP	PRO	CEDURE CH	IANGE	В	y	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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DATE	STEP	Description of NC			tion B	0	Verific		Approval	Approval
DAIL	SILI	Section A	Initial Chief Eng	Action Description Chief Eng		ign & Date	Secti	on C	Chief Eng	QC Inspector



Dart Aerospace Ltd

W/O:			WO	RK ORDER CHANGE	S				
DATE	STEP	PROCEDURE CHANGE			Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No	:	PAR #:	Fault Categ	jory:	NCR: Yes	No DQ	٨:	Date:	
	Res	olution:	Disposition: QA: N/C Closed: Date:						
NCR:			WORK ORDE	R NON-CONFORMA	NCE (NCR)		_	
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DATE	STEP Description of NC Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C		Chief Eng	QC Inspector	



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C

D4180-5F GUSSET FLAT PATTERN

w/o 41929

PRELIMINARY ISSUE

DESIGN	#	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA				
DRAWN	-					
CHECKED		DRAWING NO.	REV. PA			
MFG. APPR.		D4180	SHEET 4 OF			
APPROVED		TITLE	SCALE NTS			
DE APPR.		POD FRAME GUSSETS				
DATE 10.0	09.03	COPYRIGHT © 2918 BY DART AEROSPACE LTD THIS DOLLARD IS MAKET AND OFFICIAL UNITS INPRESENT THE EXPERIENCE GLARIFORN THAT IT IS ANT TO BE VARIOUS OFFI ARTHUR OF CUTTED IN ALL SHARP AND TO ANY STORE THE MERICULA. AND THE CONTROL OF				

Dart Aerospace Ltd

W/O:			WC	ORK ORDER CHANGE	ES				
DATE	STEP	PRO	OCEDURE CHANGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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	Re	solution:	Disposition	Disposition: QA: N/C Closed:					
NCR:			WORK ORDI	ER NON-CONFORMA	NCE (NCR)			
DATE	STEP	Description of NC						Approval	Approval
DATE	SIEF	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Secti	ection C	Chief Eng	QC Inspector

DART AEROSPACE LTD	Work Order:	61974
Description: (TUSSET	Part Number:	D4180-6
Inspection Dwg: D4(90 - 6 Rev: DA)		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X	First Article	Prototype

Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1,005-,001	,130	*		V BOD	
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4 00	.718	de		V	
7 .030	7.444	8		V	
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4.00	1133	>		V	
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					7+
	- 4				и,
	4.005-001 4.005-001 4.005 4.00 4	Tolerance Dimension 4.005001 .130 4.005001 .130 4.005001 .130 4.006 .499 4.006 .998 4.006 .118 4.006 .118 4.006 .118 4.006 .118 4.006 .501 4.007 .501 4.008 .501 4.008 .501 5.848	Tolerance Dimension Accept 4.005-001 .130 \$ 4.005-001 .130 \$ 4.005-001 .130 \$ 4.000 .499 \$ 4.000 .998 \$ 4.000 .1439 \$ 4.000 .1439 \$ 4.000 .718 \$ 4.000 .501 \$ 4.000 .501 \$ 4.000 .501 \$ 7.000 .501 \$ 7.000 .501 \$ 7.000 .501 \$	Tolerance Dimension Accept Reject 4.005001 .130 \$ 700 - 628 \$ 700 3.003 \$ 700 1.439 \$ 700 1.439 \$ 700 3.444 \$ 700 3.444 \$ 700 501 \$ 700 501 \$ 700 501 \$ 700 501 \$ 700 501 \$ 700 501 \$ 700 501 \$ 700 501 \$ 700 501 \$ 700 501 \$ 700 501 \$ 700 501 \$ 700 5.848 \$	Tolerance Dimension Accept Reject Inspection 4.005001 .130 \$

Maggi	red by:	•	Audited by:	2	Prototype Approval:	N/A
Weast	Date:	10-9-13	Date:	0	Date:	N/A
	Date.	10-1-13	inspected to	PAI Day only	Revised by	Approved
Rev	Date	Change			KJ/JLM	
A		New Issue				

